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THE IMPACT OF BAD FIT PRODUCT LINE EXTENSIONS
ON BRAND PERSONALITY

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Abstract

This work project intended to study the impact of a bad fit product line extension on brand personality. To do that, the focus of the study was narrowed down to one dimension of the brand personality, ruggedness, and another one as a comparative dimension, sophistication. The test consisted in the introduction of a bad fit extension by two brands: Harley-Davidson and Jaguar. The findings show us that a bad fit extension has more impact in the sophistication dimension (increased the dimension score) than in the ruggedness dimension (did not impact this dimension) for a rugged brand, such as Harley-Davidson. It didn't impact either dimension for Jaguar.

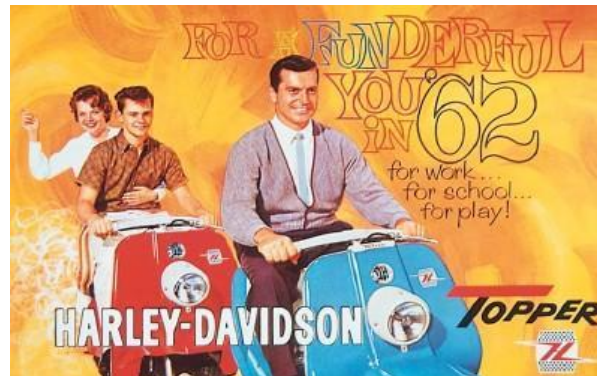
Keywords: Bad fit line extension, Brand personality, Ruggedness, Sophistication.

I. Introduction

This thesis will focus on the impact of product line extension, more specifically in line extensions that don't seem to make sense for the brand and how they can affect the brand personality of the brand.

The big inspiration for this study was an article that I read regarding a product that Harley-Davidson launched in the 60's, and probably most people didn't hear about, a scooter motorbike. This is definitely one of those examples, where the line extension doesn't seem to fit the brand. The sales were not impressive and in the mid-60s its production was cancelled. This product had the intent to compete with Honda in the U.S. emerging market for smaller bikes. Harley was known for big, loud, and powerful bikes. At the time they also had an image of rebels, outlaws, and thanks to gangs like the Hell's Angels it was also associated

with crime. As expected this brand image didn't make Harley popular near the target audience, families, students and women.



This ad for Harley-Davidson topper shows perfectly how they tried to brand themselves as something they were not.

After reading the literature on the subject, especially regarding brand personality, it seemed that the extension should have impacted more the brand image of Harley-Davidson. That's why I decided to study the impact of bad line extensions on brand personality.

II. Literature Review

The introduction of a new product, which is a variant of an existing product in a certain category, is called a product line extension (Kadiyali, Vilcassim, Chintagunta, 1999). This strategy can have different objectives, such as targeting a different consumer segment (for example, Lay's launched chips with less fat content, in order to capture the more health conscious customers), capturing market share, increase sales and revenues (when Gillette launched their shaving creams, a complementary product to their blades, their goal was to try to capture more of the men's grooming market), to use excessive manufacturing capacity or just to match a successful line extension from a competitor (as it happened with the Diet Pepsi and Diet 7Up in 1963, following the lead of Diet Coke in 1962) (Quelch and Kenny, 1994). Indeed, there is a positive relationship between line extensions and market share (Axarloglou

2008). Moreover, not only line extensions can increase overall demand, but they can also increase the price-setting power of the firm (Kadiyali, *et al.* 1999).

One downside to product line extensions could be that a shift in resources and the cannibalization of the original product could weaken its position in the market. On the other hand, if this is done in a conscious way, cannibalization could prevent the drain of customers to competitors (Quelch and Kenny, 1994). For example, due to the increase of the awareness by the consumers relatively to health concerns, brands of products seen as unhealthy are creating “Light”, “Zero Calories” and “Healthy” options (like Coke Zero or Wish-Bone Ranch Sauce Fat-free). While this cannibalizes their sales on the original products, this keeps consumers to flee from the brand to find healthier options.

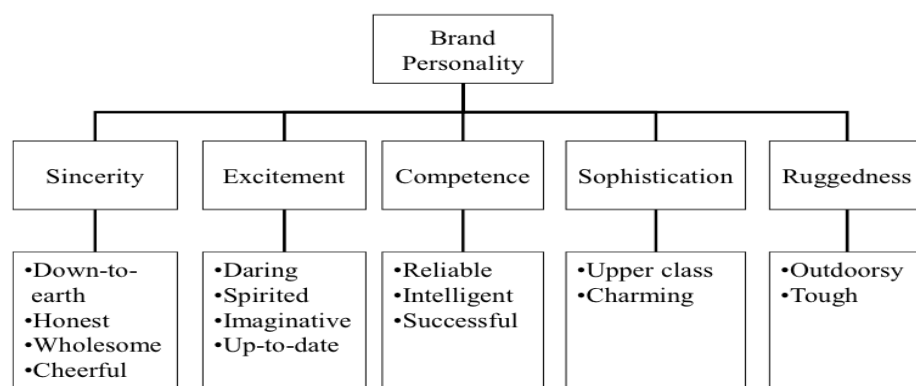
In regard, to what the literature has to say about the impact of product line extensions on brand image, they very much agree that it has an impact. An extension based in an already established brand would increase the success rate of said product, but it could come at a cost, the dilution of the brand image (Salinas and Pérez, 2009). In this matter, it's important to refer that if the line extension may confuse the consumer of the original product, this will hurt the parent brand's image by diluting it. Therefore disrupting the patterns that underlie brand loyalty, and hurting its overall market position (Quelch and Kenny, 1994).

The transfer of characteristics, or traits, from the core brand to the extension is also an important aspect of line extensions. The more similar is an extension to the core brand, the likelier are the consumers to transfer the characteristics of the brand into the extension (Bhat and Reddy, 2001). When Honda started producing lawn motors, the idea of reliability and quality that people associate Honda's motors with, was transferred to the lawn motors, they were now also associated with those traits. When the extension is a similar product/service to

the core product, it's said that the extension has a good-fit. As expected there are some consequences for an extension that has a bad fit. An example of bad fit is the line of disposable underwear that BIC launched. When this happens the extension can create harmful associations and dilute the image of the brand (Ries and Trout, 1986). In the previous example, the aforementioned, it failed because people tend to associate disposable underwear with diapers, and diapers with babies, elders and illness. This extension might make consumers associate illness and advanced age with brand BIC and therefore damage its image.

Since previous literature has established that product line extensions has an impact on the brand, it would be interesting to investigate what is the impact of product line extensions on a specific part of brand image, such as, brand personality.

Brand personality is formally defined “as the set of human characteristics associated with a brand”. The concept of brand personality, seen before as a unidimensional concept, is now seen as multi-dimensional concept, comprised by five different brand personality dimensions. These dimensions are: Sincerity, Excitement, Competence, Sophistication and Ruggedness. Each dimension has a subset of traits inside them, for example, inside Excitement we have traits such as daring, unique, provocative, imaginative or independent.



Aaker's brand personality framework

More importantly, this new concept of dimensions enabled the development of a method to measure the different brand personality dimensions (Aaker, 1997). By giving a scale (1-5 for example) we can measure how much each dimension defines the brand personality. A clear and distinctive brand personality could put a set of particular features in the consumer's mind that, ultimately, would benefit the brand equity. This would also create in a stronger emotional relationship with a brand and therefore increase the trust and loyalty of the consumers for the brand (Johnson et al., 2000).

The importance of Brand Personality had been noticed for a long time, it is viewed as the key to differentiate a product in a determined segment (Halliday, 1996), but it was not well defined besides that it was a key part of brand image¹ (Plummer, 1985). There were questions about how it was related to human personality or if the same framework could be used in both, and how to measure it was a problem as well (Aaker, 1997). Consumers imbuing brands with human traits it's not new (Gilmore, 1919) and thus advertisers for many years have used that technique by giving human traits to brands (relying on anthropomorphization (Cuetara Flakes) or personification (McDonald's with Ronald McDonald)) (Aaker, 1997).

There are three reasons why brand personality can create market differentiation (Aaker, 1997). To start it can make the brand more easily rememberable, without personality a brand has more difficulty in gaining the customer's awareness, and to create a bond with it. "Second, brand personality stimulates consideration of constructs such as energy and youthfulness, which can be useful to many brands" and lastly with the use of this personality metaphor the relationship with the customer becomes more clear.

¹ Brand image is composed by physical attributes, functional characteristics and brand personality (or characterization) (Plummer, 1985)

All of these impacts the way the brand is able to differentiate itself from their competitors, a distinct brand personality by being more easily remembered by customers gives the brand an edge over the competition. The brands can also use brand personality to make their relationship with the customer simpler by associate themselves with traits that can be found in humans, this enables the customer to relate more easily with the brand and understand what the brand is all about.

Even though the majority of the literature defends the impact of extensions on brand image and the danger of brand dilution due to bad fit extensions, more recently there were a research paper who argued otherwise, that (brand) extensions didn't impact brand personality (and therefore it didn't impact brand image) (Diamantoupolos et al., 2004).

So, now that we've seen that, according most literature, product line extensions can impact brand image, (in case of being a bad fit, it can create harmful associations and dilute the brand image) and it also has been established that brand personality is a key element of brand image (Plummer, 1985). By extension we can theorize that a bad fit line extension will have an impact on brand personality. This is what I propose to study in this paper and add to the current literature. I intend to focus on a specific dimension of brand personality: Ruggedness.

A rugged brand is a brand that embodies certain set of traits, normally associated with outdoors, sports and men. A rugged brand is a brand that has a high evaluation on the ruggedness dimension, therefore, that dimension defines the brand. This is an important dimension since it's relevant for most men and many times it's associated with man's lifestyle, and the ideal of masculinity. This is something that most men can easily relate with and it tends to be an important selling point to brands that target the men segment, you have

the example of Gillette and several Whisky brands that try to sell the image only true and successful men use their product.

So if a bad fit impacts the brand personality of a brand, it should be seen a bigger impact on the dimension that defines the brand when comparing with the other dimensions. So on a rugged brand, a bad fit line extension should impact more the ruggedness dimension (probably will decrease its score) than one of the other four dimensions, for example sophistication.

Sophistication in theory is the opposite of the ruggedness dimension, while the latter stands for the masculine, sophistication is associated with the feminine but not only. It is also related with the traits that we tend to associate with a high social status, such upper-class, glamorous or charming. While they are theoretically opposites, due to the characteristics of Aaker's framework (multidimensional concept) there is the possibility that these two dimensions have high scores at the same time, it's unlikely but it could happen.

Hypothesis: "A bad fit product line extension introduced by a rugged brand is going to have more impact on the ruggedness dimension than on the sophistication dimension."

III. Methodology

Aaker's framework

Aaker's five brand personality dimensions measures the weight of each dimension on the brand personality of a brand. Depending on how each dimension is evaluated, brands will be seen differently. This framework enables also the measurement of changes in brand personality in a case of an extension is introduced for example. To see this change we compare each dimension after the introduction of an extension versus the case where is not

introduced (or before the introduction). It's important to notice that if the extension increases or decreases the weight of a certain dimension, it doesn't mean it has a positive impact if it increases, or the other way around. It all depends on how the brand wants to be perceived and its vision for their brand image. The changes should reinforce the brand image and not dilute it. For example if an extension made Pabst Brewing Company sophistication dimension increase, this might be hurtful for their image since they are a brand associated with hard-work and the beer that the everyday worker drinks after a hard workday. They don't want a sophisticated beer, they want a beer that represents their hard work (and a rugged brand does that). . On the other hand, if Swarovski launched an extension that made its sophistication dimension increase that should be positive since it's reinforcing its image. If there's one thing that people associate jewelry with, it is sophistication and an upper-class status. So this increase in the sophistication dimension would reinforce this perception from the consumers towards Swarovski.

Stimulus

The stimulus used was the brand Harley-Davidson. It was decided to narrow down the focus to the dimension where Harley-Davidson markets itself, the Ruggedness dimension. In order to have some point of comparison we decided to use Jaguar, that is more associated with Sophistication, to analyze if the results between different brands and same dimensions are similar or not. It was considered that Jaguar and Harley-Davidson are in the same market, motorized private transportation. Harley-Davidson is synonymous with rebellion, freedom and liberty all over the world and the brand uses this in its advantage by creating a culture around the brand that promotes this. Also pop-culture contributed a lot to this, with such films as "The Wild One" and the "Easy Rider" feeding the myth, as well, their use by such gangs as "Hell's Angels" these gave them the image of outlaws and bad-boys. Nowadays, things have

changed a little, there's not as much of prejudice towards motor bikers as a couple of decades ago.

In terms of the product line extension, a scooter motorbike was the extension chosen. Scooter it's not a type of motorcycle normally associated with Harley, even though they had one model in the 60's, the Harley-Davidson Topper. The scooter model created was called Esmeralda. It is expected that both extensions are perceived as ill-fitted for the brand by the respondents.

Design and Procedure

To test the hypothesis it was designed an empirical test where the hypothetical line extension (it was presented to people as a real one) that was ill fitted to Harley-Davidson (Rugged brand) was introduced, this would allow analyzing if there were any significant differences between the brand personality dimensions after the introduction of the extension. As a point of comparison the same extension was introduced to Jaguar, a more sophisticated brand when comparing with the ruggedness of Harley, this allows to compare how brands with a different brand personality profile react to the same extension. The same extension is used in order to limit the variables and to guarantee that the change in the dimension scores and their scale are due to the characteristics inherent to the dimension and not due to differences in the extension. The test was based on Aaker's brand personality dimensions framework and it was done via a Facebook enquire using the platform Survey Monkey.

In order to guarantee a certain level of randomness in the respondents, it was created a mock survey where there was one question, where four words were listed: Square, Circle, Triangle and Cross. Their order changed every time the survey was opened. Each word was associated with one of the four surveys. After they chose a word, it would appear the link to

the survey associated with that word. There were defined 4 groups: Harley-Control, Jaguar-Control, Harley-Extension and Jaguar-Extension.

Participants that were randomly assigned to the control survey of Harley (Harley-Control) were asked the following:

1. How well do the following personality traits describe Harley-Davidson?

	Doesn't describe at all	Describes poorly	Describes moderately	Describes well	Describes perfectly
Sophisticated	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Rebellious	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Upper-class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Free-spirit	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Outdoorsy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Charming	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tough	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Glamorous	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Good-looking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Manly	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

The Harley-Control test consisted in a list of traits associated with the Ruggedness and Sophistication dimension: Manly, Outdoorsy, Free-spirit, Rebellious, Tough, Charming, Glamorous, Good-looking, Upper-class and Sophisticated. The main purpose of the control test was to have a benchmark so we could later see if there was any difference after the introduction of the extension. The scale to measure used was one from 1 to 5, where 1 meant that the word “doesn’t describe at all” the brand and 5 “describes perfectly” the brand. In the case of participants that were assigned to Jaguar-Control the same table would appear but the title would read “How well do these traits define Jaguar?”.

Participants assigned to the survey Harley-Extension, were presented immediately with a description of the product line extension that was about to be launched:

Harley-Davidson will announce in January 2017, that in May 2017 the brand new scooter **Harley-Davidson Esmeralda** will be launched (available in 125cc, 250cc, and 500cc)!

This will be the urban and exciting scooter alternative from Harley-Davidson, low on emissions and consumption.

Next, participants in this condition completed two questions to measure how fitted this line extension was to the brand. The first asked the respondents for up to three words/traits that they associated with the extension (Which words (max.3) come to your mind when you think in a scooter motorbike?). The main purpose of this word association was to try to find trends that later could help in explaining some of the findings.

The second asked directly to the respondents if they associated the extension with the brand (How much do you associate scooter motorbikes with Harley-Davidson?). It was asked to respondents classify from 1 to 5 how much they associated the extension with the brand, where 1 was “Don’t associate at all” and 5 was “Associate completely”. It was considered that above the average (between 1 and 5, so 3) the extension represented a good fit and below the average it was considered a bad fit. Finally, after this measure of extension fit, it was asked to respondents to complete the exact same table that appeared in the Harley-Control test with the same ten traits on it.

Regarding the participants of the Jaguar-Extension condition test, the participants completed an enquire equal to the Harley-Extension test in everything except the brand name, where it appeared Harley-Davidson now appeared the Jaguar name.

After getting the results Harley-Control will compare with Harley-Extension, while Jaguar-Control will compare with Jaguar-Extension. As a quantitative measure it is established that an increase/decrease of 0.2 points or less is considered not significant.

Respondents’ profile

126 participants took part in this study, the distribution for the four surveys was the following: Harley-Davidson Control (31), Harley-Davidson Extension (33), Jaguar Control (32) and Jaguar Extension (30).

Relatively to age and gender, the average age and gender ratio (%Male-%Female) per enquiry was the following: Harley-Control 23,1 years old and 52% males, Harley-Extension 22,6 years old and 74% males, Jaguar-Control 23,15 years old and 44% males, and Jaguar-Extension 24 years old and 47% males. The fact that the average age is similar across the surveys shows us that the randomization of the test was successful. Also the male-female ratio was similar with the exception of the Harley-Davidson Extension survey.

IV. Analysis of the results

Regarding the fit of the extensions on both brands, Harley Davidson had a fit of 2.12, well below the mean of 3. So it is considered as a bad fit extension for the brand. From the 33 respondents, 20 “don’t associate at all” a scooter motorcycle with Harley-Davidson.

In the case of Jaguar, it had an association of 1.37. Once again well below the mean of 3, so the extension was also considered as a bad fit for the brand. From the 31 respondents, 22 “don’t associate at all” a scooter motorcycle with Jaguar. The fact that both extensions are perceived as a bad fit for the brands, indicates that the manipulation was successful, since that was our initial goal.

The word association with “scooter motorcycle” brought a wide range of word associations, but after the results compiled (174) these are the 11 words that appeared the most: speed/fast (25), convenient/practical (20), trendy/cool (16), mobility/freedom (13), dangerous (12), fun (10), small (8), urban (6), easy (to drive) (5), economic/cheap (5) and design/style (5).

These associations can be connected with different dimensions. One could argue that “dangerous” is related with Ruggedness, while “speed/fast”, “trendy/cool” and “fun” are related with Excitement. It can also be drawn a parallel between “convenient/practical” and

“easy“(to drive) with the Competence dimension (even though “convenient/practical could also be associated with the ruggedness dimension). Finally “urban” and “design/style” could be seen as part of the Sophistication dimension. This shows that this product in particular is highly subjective, in terms of the associations people make in their own mind. Even when only considering the top 3 word associations, they come from three different dimensions.

Regarding the Harley-Davidson tests the scores were the following:

H-D	No extension		Esmeralda		
	Mean	SD	Mean	SD	Delta (Mean)
Manly	4,32	0,819	4,45	0,700	0,13
Rebellious	4,48	0,713	4,64	0,731	0,16
Tough	4,35	0,698	4,48	0,500	0,13
Free-Spirit	4,35	0,650	4,59	0,605	0,24
Outdoorsy	4,10	0,777	4,18	0,653	0,08
Ruggedness	4,32	0,74	4,47	0,66	0,15
Charming	2,35	1,03	2,79	0,977	0,44
Sophisticated	2,48	0,98	2,91	0,965	0,43
Glamorous	2,32	1,12	2,5	0,901	0,18
Good-looking	3,16	1,11	3,7	0,627	0,54
Upper-Class	3	1,14	3,58	0,986	0,58
Sophistication	2,66	1,13	3,10	1,02	0,43

As we can see in the Harley-Davidson control group, Harley Davidson had high values in the rugged traits, between 4.1 (SD=0.777) for “Outdoorsy” and 4.48 (SD=0.713) for “Rebellious”, while the sophistication traits were lower as expected, between 2.32 (SD=1.12) for “Glamorous” and 3.16 (SD=1.11) “Good-looking”. The overall scores for both dimensions (average of the traits scores) was 4.32 (SD=0.74) for the ruggedness dimension and for the

sophistication dimension it was 2.66 (SD=1.13). This control test proved the idea that Harley-Davidson is perceived as clear a rugged brand, with all sophisticated traits lower than the rugged traits.

On the case of Harley-Davidson the introduction of the extension had a positive impact in every trait tested, all of them increased. Even though that there is a clear distinction between the increase in rugged traits and sophisticated traits, the latter increased more than the former (even though this happened, the rugged dimension was still the dominant trait out of the two).

About the changes in the individual traits, from the 5 rugged traits only one of them was significantly impacted by the introduction of the extension, “Free-Spirit” (X=4.59, SD=0.605) increased 0.24. The other four traits of the ruggedness dimension, “Rebellious” (X=4.64, SD=0.731), “Tough” (X=4.48, SD=0.500), “Manly” (X=4.45, SD=0.700), “Outdoorsy” (X=4.18, SD=0.653), were all impacted less than 0.2 points, which once again means that these four traits were not impacted by the introduction of the extension.

On the other hand, from the five sophisticated traits tested four were impacted significantly by the introduction of the extension (increased more than 0.2 points), “Sophisticated” (X=2.91, SD=0.965) increased 0.43, “Upper-class” (X=3.58, SD=0.986) increased 0.58, “Charming” (X=2.79, SD=0.977) increased 0.44 and “Good-Looking” (X=3.7, SD=0.627) increased 0.54. Only “Glamorous” (X=2.5, SD=0.901) did not increased significantly.

Overall speaking, the dimensions did both increase with the introduction of the extension, but while the sophistication dimension (X=3.10, SD=1.02) increased 0.43, the ruggedness dimension (X=4.47, SD=0.66) only increased 0.15. This means that in the case of Harley-Davidson from the two dimensions studied in this test, only the dimension of sophistication was significantly impacted (increased) by the introduction of a bad fit line extension. The core

dimension, the ruggedness dimension, was not. Even though that the sophistication dimension increased its weight in Harley-Davidson's brand personality, the ruggedness dimension is still the one that defines the brand ($X=4.47$) when comparing with sophistication ($X=3.1$).

For the Jaguar test the results were the following:

Jaguar	No extension		Esmeralda		
	Mean	SD	Mean	SD	Delta (Mean)
Manly	3,59	1,057	3,77	0,803	0,18
Rebellious	2,63	0,992	2,27	0,929	-0,36
Tough	2,94	1,059	2,8	0,980	-0,14
Free-Spirit	3,19	1,102	2,83	1,098	-0,36
Outdoorsy	2,97	1,015	2,86	1,041	-0,11
Ruggedness	3,06	1,094	2,91	1,089	-0,16
Charming	4,19	0,768	4,17	0,637	-0,02
Sophisticated	4,31	0,634	4,37	0,795	0,06
Glamorous	4,19	0,882	4,17	0,820	-0,02
Good-looking	4,23	0,869	4,37	0,875	0,14
Upper-Class	4,41	0,744	4,33	0,596	-0,08
Sophistication	4,27	0,79	4,28	0,76	0,02

In the Jaguar control group, Jaguar had high values in the sophisticated traits, between 4.19 for "Glamorous" ($SD=0.882$), "Charming" ($SD=0.768$) and 4.41 ($SD=0.744$) "Upper-class". All of the rugged traits scored lower than the sophistication traits, they were placed between 2.63 ($SD=0.992$) for "Rebellious" and 3.59 ($SD=1.057$) for "Manly". The overall scores for both dimensions (average of the traits scores) was 3.06 ($SD=1.094$) for the ruggedness dimension and for the sophistication dimension it was 4.27 ($SD=0.79$). As in the case of

Harley, this control test proved the idea that Jaguar is perceived as a sophisticated brand, with all sophisticated traits higher than the rugged traits.

In the case of Jaguar both dimensions weren't significantly impacted by the introduction of the extension, the ruggedness dimension ($X=2.91$, $SD=1.089$) decreased by 0.16 points while the sophistication dimension ($X=4.28$, $SD=0.76$) barely changed with an increase of 0.02.

When looking to the traits in each dimension, there's no clear picture. In the ruggedness dimension, four out of five traits were impacted negatively while "Manly" ($X=3.77$, $SD=0.803$) increased by 0.18. There were two traits that were impacted significantly by the introduction of the extension. As it happened with Harley-Davidson, "Free-Spirited" was again impacted significantly but this time negatively, there was a decrease of 0.36 points. The other trait was "Rebellious" ($X=2.27$, $SD=0.929$) that also decreased 0.36 points. In the case of the sophisticated traits, the effect is even more divided. Three out of the five traits decreased after the extension, even though the average of the five traits is positive. None of the traits of the sophistication dimension were significantly impacted.

We can also see that the standard deviation for both dimensions decreased after the introduction of the extension on both brands.

V. Discussion

The hypothesis, "A bad fit product line extension introduced by a rugged brand is going to have more impact on the ruggedness dimension than on the sophistication dimension." was therefore refuted. As it happened it appears to be the other way around. The sophistication dimension was impacted by the introduction of the extension while the dimension that defined the brand wasn't.

By having another brand (with the same bad extension) to compare the results, we can see if this effect can be attributed to being inherent to the sophistication dimension or because it was the dimension that did not define the brand. As it happened it can't be attributed to either reason, as it's easily seen in the Jaguar table, the sophistication dimension was not impacted after the extension and the non-defining dimension (ruggedness) was not impacted after the extension as well.

This leads me to believe that the effect seen in Harley's case is particular to rugged brands. When a rugged brand introduces a bad fit line extension the sophistication dimension will be impacted (in this case it increased). This might indicate that it's easier to a rugged brand to get more sophisticated, than for a sophisticated brand to get more rugged in the eyes of the consumers.

This test helps to explain the failure of the Harley-Davidson Topper. The introduction of the bad fit product line extension even though it increased the sophistication dimension of Harley at the time, it did nothing to soften the ruggedness dimension of the brand. It's also very likely, that at the time the gap between the values of both dimensions was even bigger than nowadays. Even though the sophistication dimension increased, at the eyes of the consumer Harley was still seen as the outlaw and rebellious brand, therefore families stayed away from the Harley-Davidson Topper, condemning it to failure, as it happened.

Regarding why the sophistication dimension increased in the Harley example, it might be related to the characteristics of the extension itself, a scooter motorbike. When asked for words that respondents associated with the extension, on the most common words appeared "design", "trendy" and "urban". These words are easily relatable with the sophistication dimension and can in part explain the increase of the dimension after the introduction of the

extension. The fact that other words associated with the extension could also be linked with other dimensions, such as Excitement, could lead us to believe that these dimensions could also be impacted by this extension. This possibility is discussed on the “Research Limitations and Future Research” part of the thesis.

One possible explanation for the trait “Free-Spirited” being significantly impacted by the extension in both brands might be the fact that respondents have thought that free-spirited stood for freedom/mobility, the fourth most associated idea with scooter. It could happen that there was a misunderstanding of the trait.

VII. Conclusion

In the case of a predominantly rugged brand that extends a product that doesn’t fit the brand, the research found that the impact on the rugged dimension is smaller (it wasn’t impacted) than in the sophistication dimension, therefore refuting the hypothesis. This doesn’t mean that the research doesn’t have value, there were still found interesting effects and managerial implications for them.

One of the effects that were found on the Harley extension was the fact even though the core dimension (ruggedness) didn’t change significantly, sophistication dimension score increased. For some people this might be enough to consider buying the extension even if they don’t review themselves in the core brand. Even though as seen in the case of the Harley-Davidson Topper in the 60’s, since the extension cannot soften the rugged character of the brand, it might not be enough to reach a big new customer segment (in this specific case a more sophisticated oriented customer). The increase in sophistication can nonetheless open a door for customers, that are more sensitive to the sophistication dimension, relate with the brand.

It's important to refer once more, that this increase in sophistication might be good for the brand or not, it all depends on how they want to be perceived by the consumer, to talk about a positive or negative impact (in a qualitative sense) we have to look to each brand in particular. To Harley in particular this increase might be hurtful, since more than a bike they sell an experience and an escape from the day-to-day life. Even though their main customers are older, rich, white man (that could be seen as sophisticated customers), when they buy a Harley-Davidson they buy it for their rugged characteristics, freedom and rebel spirit. It's their escape from their white collar world.

Also the fact that there was no impact on the rugged dimension for Harley, might allow rugged brands such as, Nike, North Face or CAT for example, to risk more in their line extensions, in different parts of the world, and in different markets, without the worry of the impact on the defining dimension of their brand personality. There are examples of line extensions that at the time were seen as a bad fit, such as Rolls Royce (sophisticated brand) producing engines for WWII airplanes (the government had to impose that they start to produce them), and nowadays are a huge success. Rolls Royce still produces engines to the biggest airplanes manufacturers in the world. Also Under Armour's (rugged brand) military line extension (it must be considered a bad fit, it would be the same as if Nike or Adidas launched a military clothesline) was a success. In both these cases, the line extension introduced is more associated with the competence dimension, since they are products that cannot fail (the engine of an airplane can't fail and even clothes cannot have malfunctions in frontline of a war).

Perhaps their brand personality with these extensions changed and their brand image got diluted (the competence dimension might have behaved similarly to the sophistication dimension in the Harley's case), but one cannot say that the brands were worse off. Under

Armour stop being only a rugged brand that produced products to outdoor sports, to now also being known for their top quality products.

It's also important to refer that even though the hypothesis was based on the literature, and the hypothesis was refuted, this does not mean necessarily the findings go against the literature. The literature mentioned that the brand would be diluted. Our findings showed that in the case of rugged brands it won't impact the score of the ruggedness dimension, but perhaps with enough time the sophistication dimension could catch up with the ruggedness dimension (or at least have more weight on its brand personality). This would change the brand personality and subsequently the brand image.

VIII. Limitations and future research

As mentioned in the discussion part, there might be another reason why the impact on the sophistication dimension after the introduction of a line extension was so prominent for the case with the Harley-Davidson. It could have happened that the increase in the sophistication dimension is due to the fact it was the only dimension available besides the ruggedness dimension. So in the case of excitement or sincerity were present, would the effect dissipate for the 3 dimensions besides sophistication or would we still see the same impact on the sophisticated traits?

It should be also tested the possibility of existing different grades of bad fit. In this case the extension was considered a bad fit for both brands, but quantitatively they slightly differed. Does only matter if they are a bad or a good fit, or does it matter the level of fit as well? Besides the quantitative part, it should be analyzed if two extensions with the same level of bad-fit (or good-fit), but that differ in word association make a different impact on brand personality dimensions. It would also be interesting to see what it would be the impact of

consecutive extensions. Would each additional extension make the same impact as the previous one or would we see a case of diminishing effects?

It would also be interesting to expand the findings of this research to other dimensions. What would happen when a bad fit line extension is introduced on an exciting brand? And on a sincere brand? Are these results exclusive to rugged brands?

Lastly there was a theme not talked in this research, which was the impact of the introduction of a line extension in new customers of the brand versus the core customers of the brand. One might argue that core customers are less sensitive to changes, but in cases such as the Harley-Davidson, that the product sold is also associated with a lifestyle, an extension that might tarnish this experience (such as a bad fit extension) can perhaps do more harm to the perception of a core customer, than to a person that doesn't have an Harley-Davidson. If this is true, it will have a direct impact on the findings of this research. Since the average age of the respondents was low, in the early 20's (we know that the average age of an Harley customer is 47 years old), and taking into account the price of the products of both brands we might say with a fair amount of certainty that respondents are not representative of the core customers for both brands. There is still the possibility of them being users, due to friends and family, but they are not customers.

IX. References

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